

## **DETAILED ACTION**

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Curtis B. Hamre on Thursday, June 12, 2008.

The application has been amended as follows:

In claim 5, line 5, after "for generating a pulse electric power" (line 5), the following has been inserted – having a voltage of higher than or equal to 1500 volts (V) and a current of less than or equal to 5 milliamperes (mA) –

Claim 6 has been cancelled.

### ***Allowable Subject Matter***

2. Claims 5 and 7-11 are allowed.
3. The feature recited in claim 6 which read: "wherein the pulse electric power generated between the first electrode and the second electrode has a voltage of higher than or equal to 1500 volts (V) and a current of less than or equal to 5 milliamperes (mA)" has been incorporated into claim 5. Therefore, the portion of claim 5 to which claim 6 has been included reads as follows: "...a pulse generator for generating and

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supplying a pulse electric power **having a voltage of higher than or equal to 1500 volts (V) and a current of less than or equal to 5 milliamperes (mA)** between the first electrode and the second electrode..."

4. The following is an examiner's statement of reasons for allowance: the claimed invention requires a pulse electric power generated between the first electrode and second electrode having a voltage of higher than or equal to 1,500 volts. Accordingly, the polarity reversal is done to "move" the silicon from one electrode to the other, thereby preventing the need to replace one of the electrodes. Thus, the formation of oxygen is at a minimum due the silicon deposition occurring as the other half-cell reaction to the hydrogen generation half-cell reaction. The closest prior art, Chambers (US Patent no. 6,126,794) and Switzer et al (US Patent no. 4,663,004), discloses applying a pulsed electric signal from a power supply (col. 4, lines 29-33 of Chambers) but fails to teach wherein the voltage applied between the electrodes is higher than or equal to 1,500 volts. There was not found a teaching in the prior art suggesting modification of the conventional electrolytic process to obtain the features of the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ZULMARIAM MENDEZ whose telephone number is (571)272-9805. The examiner can normally be reached on Monday-Thursday, 8:30am-5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexa Neckel can be reached on 571-272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Z. M./  
Examiner, Art Unit 1795

/Alexa D. Neckel/  
Supervisory Patent Examiner, Art Unit 1795